

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (original): An apparatus for applying pulsed electromagnetic therapy to humans and animals, said apparatus comprising:

a straight-wire element for generating a magnetic field in response to flow of a current pulse therethrough;

a circuit for supplying to said straight wire element a current pulse that approximates a square pulse in form, so that said straight-wire element generates a magnetic pulse having rapid rise and fall times; and

a portable housing containing said circuit and straight-wire element so that said straight wire element can be placed in close proximity with an affected area of a body.

Claim 2 (original): The apparatus of claim 1, wherein said straight wire element is formed integrally with said circuit.

Claim 3 (original): The apparatus of claim 1, wherein said magnetic pulse generated by said straight wire element has a sustained peak field strength duration of less than about 300 nanoseconds.

Claim 4 (original): The apparatus of claim 3, wherein said magnetic pulse has a duration of about 200 nanoseconds.

Claim 5 (original): The apparatus of claim 3, wherein said magnetic pulse has a peak field strength of less than about 3-5 gauss at a 1 cm distance from said straight wire element.

Claim 6 (original): The apparatus of claim 5, wherein said magnetic pulse has a peak field strength of about 2 gauss at a 1 cm distance from said straight wire element.

Claim 7 (original): The apparatus of claim 5, wherein said magnetic pulse is repeated with a frequency in the range of about 10-100 Hz.

Claim 8 (original): The apparatus of claim 7, wherein said magnetic pulse is repeated with a frequency of about 70 Hz.

Claim 9 (original): The apparatus of claim 1, further comprising:
a sensory indicator that demarcates an approximate range over which said magnetic field is generated.

Claim 10 (original): The apparatus of claim 9, wherein said sensory indicator comprises:

an LED mounted in said housing for illuminating shin over said approximate range of said magnetic field.

Claim 11 (original): The apparatus of claim 1, wherein said portable housing comprises a hand-held probe that encloses a single said circuit and straight wire element.

Claim 12 (original): The apparatus of claim 1, wherein said housing comprises a conformed pad having a plurality of said circuits and straight wire elements enclosed therein.

Claim 13 (original): The apparatus of claim 12, wherein said conformed pad comprises a pliable sheet having said circuits and straight wire elements embedded therein.

Claim 14 (original): A method for applying pulsed electromagnetic therapy to humans and animals, said method comprising the steps of:

positioning a straight wire element in close proximity to an affected area of a body, for generating a magnetic field in response to flow of a current pulse therethrough; and

supplying to said straight wire element a current pulse that approximates a square pulse in form, so that said straight wire element generates a magnetic pulse having rapid rise and fall times.

Claim 15 (original): The method of claim 14, wherein said magnetic pulse generated by said straight wire element has a sustained peak field strength duration of less than about 500 nanoseconds.

Claim 16 (original): The method of claim 15, wherein said magnetic pulse has a duration of about 200 nanoseconds.

Claim 17 (original): The method of claim 15, wherein said magnetic pulse has a peak field strength of less than about 5 gauss at a 1 cm distance from said straight wire element.

Claim 18 (original): The method of claim 17, wherein said magnetic pulse has a peak field strength of about 2 gauss at a 1 cm distance from said straight wire element.

Claim 19 (original): The method of claim 17, wherein said magnetic pulse is repeated with a frequency in the range of about 10-100 Hz.

Claim 20 (original): The method of claim 19, wherein said magnetic pulse is repeated with a frequency of about 70 Hz.